

THE
HORSE-OWNER'S
GUIDE.

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THE
HORSE-OWNER'S GUIDE;

OR,

PRACTICAL INSTRUCTIONS

ON

THE HORSEMAN'S POINTS.

THE HORSE IN HEALTH.

THE HORSE IN SICKNESS.

THE HORSE'S TEETH.

THE HORSE'S HOOFS.

THE AGE OF THE HORSE.

TREATMENT OF HIS DISEASES.

HOW TO BUY A HORSE.

EMBRACING, ALSO, A NUMBER OF

THE MOST VALUABLE RECIPES IN USE BY THE BEST EUROPEAN VETERINARIANS,

NEVER BEFORE BROUGHT INTO PUBLIC NOTICE.

Illustrated with Four Lithographic Plates,

WHICH BRING THE WHOLE SUBJECT WITHIN THE COMPREHENSION OF EVERY PERSON.

BY F. H. WALTHER,

Formerly First Veterinary Surgeon to His Excellency the Prince Otto Victor of Waldenburg,
and First Veterinary Surgeon of the Royal Veterinary College of Saxony,
and Member of different Scientific Societies in Europe.

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P R E F A C E .

The practice of the Veterinary Art was carried on, during the eighteenth century, mostly by quacks and uneducated persons. It has, however, within the last sixty years, advanced to the rank of a science, hand in hand with other branches of human knowledge.

Devastating disorders among animals became the impulse to a more exact study and treatment of the same, and the consequent advance from empiric to scientific knowledge. The veterinary schools founded by the governments of Europe pursued the subject of the education of veterinarians, at first, under the guidance of accomplished physicians and celebrated horse-doctors, who conjointly taught and presided; this was the stepping-stone from guess-work to exact knowledge. Persistent exertions, comparisons between human and animal physies, exact study of anatomy, physiology, &c., finally brought veterinary science to its present position.

The present work is intended as a guide for owners of horses, to enable them, in the absence of a veterinarian, to undertake the alleviation of the suffering of the sick horse, or its complete cure. A great many books have been written on this subject, but they are mostly large, costly works, frequently tiresome, and unintelligible to the unprofessional reader.

The object of the present undertaking is a wish to produce, in an economical and intelligible manner, what may prove a welcome guide to all those interested in horses.

INTRODUCTORY REMARKS.

DISEASES OF THE HORSE.

The regular, undisturbed, natural action of the various functions of the vital organs of an animal, is health; the reverse, constitutes sickness. Every sickness has its causes, effects, forms, duration, and termination.

Causes of sickness are both internal and external. The former, called predisposition or susceptibility to sickness, lies in the general mutability of animal nature, which, in order to exist, needs continually the outer world, and consequently may be endangered by too much, or too little influence therefrom. Another cause of sickness is hereditary deterioration. These causes may undergo many changes; may increase or decrease; dependent on age, sex, constitution, temperament, and manner of living.

For instance, old age inclines to stiffness of the joints; very young animals are apt to suffer from disease of the lymphatic ducts; the female is liable to diseases of the udder; those with a strong constitution are subject to fevers and inflammations; those of a choleric temperament, to bilious diseases.

The manner of keeping domestic animals is very diverse from their natural habits, and thereby the cause of special disease. Light, air—its dryness and moisture—cold, warmth, exercise, food and drink, stables, and the attention paid to the animals, are all subjects for consideration.

Much of the physicking, as a preventive, such as bleeding, purging-powders of all kinds, is erroneous and preposterous; and often deranges the condition of otherwise healthy animals.

Other causes are either mechanical (pressure, blows, stabs, etc.), or chemical (poisons, acids, alkalis), and finally active causes, which operate directly on the *sensibility* of an animal, and thereby produce sickness.

If both internal and external causes of sickness are combined, under peculiar circumstances, the result will be, visible changes in the appearance of the animal, called symptoms of sickness. These show themselves,—

FIRST.—In the organs of feeling and motion, by pain, itching, dullness, giddiness, trembling, sudden starts, running off, etc.

SECOND.—In the circulation of the blood; the beating of the pulse is either too slow or too quick, too soft or too hard.

THIRD.—In the digestive organs, by restlessness, colic, etc.

FOURTH.—In the urinary organs, by too much or too sparse evacuations, even mingled with blood.

FIFTH.—In the appearance of the skin; by all forms of scaly eruptions, etc.

SIXTH.—In the organs of generation; by involuntary emissions and weakness.

SEVENTH.—In the exterior appearance of the body, boils, etc.

Diseases are either acute or chronic, and convalescence in the former may often appear with stormy signs, called crises. The symptoms of the crisis will be according to the character and seat of the disease; critical perspiration, urinary flow, diarrhœa, eruption of the skin, etc. The crisis may repeat itself until the disease is conquered, if not strong enough to do so the first time. Its appearance will usually be made on the uneven days of the run of the disease; as the third, fifth, seventh, ninth, up to the twenty-first. Disease will often change its nature or its seat.

Most diseases are curable, if proper care be taken in the first stages of their appearance and judicious means applied to support nature in its battle; but success is not always certain, and death is inevitable if the causes for the disease are not removed. The only natural death is that of old age—by waste of substance and ossification—a very rare occurrence, indeed, in these (even for horses) artificial times.

METHODS OF CURE.

He who takes care of the sick horse not only enhances the value of his property, but does an essential service to the welfare of his country. Physicking, alone, as many people believe, will not, however, be sufficient. It will be necessary, first, to find out the cause of the sickness; this removed, nature will frequently perform the cure without help from medicine. (For instance, when the horse has a pebble between the shoe and the hoof, remove this, and the lameness will disappear. If "*diabetes*" is caused by musty food, give him good, healthy food, instead, and he will be well. Many other examples could be given, but these will be sufficient.) Cases occur, however, when, after the removal of the cause, nature will no longer be strong enough to perform the cure alone; then nature must be assisted by one of the various methods of curing diseases. We give here only two—the most generally acknowledged ones—the *homœopathic* and the *allopathic*.

The first deserves preference, in most cases, because the inexperienced person here runs less risk of doing harm than if he has recourse to allopathic medicines. The best means of administering the former to the horse is, to put from one to three drops, or from eight to twelve pellets or pills, on a wafer of flour-paste or a small piece of bread, to raise the horse's head a little, pull the tongue out, and place the wafer as far back as possible; after which, the mouth is held closed with the hand, in order to compel the animal to swallow. Care must be taken, however, to give the medicine either one hour before, or one hour after he is fed. The liquid form of allopathic medicines deserves the preference in dangerous diseases, which run a rapid course, because it will operate soonest. In some cases, however, this form cannot be used; as, for instance, in inflammations of the throat, where the horse cannot swallow. Also, with animals suffering with cough,

etc. In less dangerous cases, give it as powder—one or two spoonfuls—mixed with the food. Only medicines which have a very bad taste (aloes, etc.) need be given in pills. This form, and *electuaries*, are the easiest to administer. Take a wooden spatula full of the latter, and spread it on the tongue. If an electuary must be given liquid, mix it with a pint of warm water, and give it carefully to the horse.

Most feverish and inflammatory diseases require less nourishing, but easily-digestible food, as wheat-bran mixed with water, and that only in small quantities. Never force the animal to eat; rather wait until the appetite comes of itself, as the sickness might be otherwise increased.

A dry, spacious stable, free from draught, with a good litter, warm coverings, and plenty of good water, will materially help.

Lame horses must have *soft* litters and plenty of space, so that they can rest themselves perfectly well.

Injections are useful means of hastening the evacuation of the bowels, when the disease requires their speedy action. If it is intended to soothe the animal (inflammation), give but *one*; if rapid evacuation is desired, repeat them quickly.

When you bathe the horse, for the first time, in cold water, keep him but four or five minutes, at most, in the water; rub him, afterwards, perfectly dry, and take him to a warm stable, with good, dry litter. By and by, the horse may be kept longer in the water.

Local cold baths may be continued from one to three hours, as necessity may require.

Warm full baths are but rarely used, whilst *local warm baths* are very frequently required. For the latter, soap must be put into the water, and frequently aromatic substances added. (A decoction of *hay* is the cheapest.)

Shower-baths are also sometimes used, but squirting at the afflicted spot, with a syringe (called *douche-bath*), is more frequent.

Sea-baths have a soothing influence, but if too long continued they become fatiguing. After five or six baths, the horse will be, frequently, very tired, but after twelve or fifteen, his strength and agility will return. They remove obstructions, help the circulation of the blood, and will thin the blood.

Nearly related to the baths, are *fomentations*. They are best applied by means of flannel, frequently dipped in hot water, or boiled linseed or millet, together with aromatic substances, etc., put into a small bag, and applied as hot as the hand will bear.

Steaming — *vapor-baths*, are likewise frequently made use of. If applied locally, hot barley, fennel, etc., are put into a bag, so that the water can run off, and then fastened to the neck of the horse, if the throat be affected; if the disease be in the head, put it into a bucket, and hold the horse's head just above it, and renew the steam with a hot iron, at short intervals. The application, however, must not exceed one hour. Afterwards, the horse must be rubbed dry, and kept warm.

DISEASES AND SPECIFIC REMEDIES.

The numbers in the text refer to the recipes which follow.

H. R. means Homœopathic Remedy; A. R. Allopathic Remedy.

If more than one homœopathic remedy is referred to, only the first on the list should be used, and from four to six days allowed for its operation; if not efficacious, try the next in order, &c.

ALBUGO, OR LEUCOMA. — A disease of the eye. It may be partial or entire, with whitish spots, or the whole eye become of a white color.

H. R. — If partial, after inflammation use cannabis and conium. If produced by whip-cuts or other outward causes, use cannabis alternately with belladonna and conium. If red stripes are visible on the cornea, use sarsaparilla and sulphur. If the disease is of long standing, pulsatilla, sulphur, euphrasia, causticum, lyco-podium.

A. R. — Wash with No. 1, daily, from four to six times.

AMAUROSIS. — Commonly called *glass-eye*. Paralysis of the optic nerve, and blindness.

H. R. — In the beginning of the sickness, ammonium-carbonicum and causticum; afterwards, belladonna, euphrasia, cannabis, sulphur.

A. R. — If the blood rushes to the head, bleed the horse, and purge with No. 3. Moisten around the eye, outwardly, three or four times a day, with No. 4.

ANCHYLOSIS. — A stiffness of the joints, with partial or complete loss of motion, in consequence of the bones growing together, or the contraction and thickening of the ligaments.

H. R. — Arnica, both inside and outside, rhus-toxicodendron, pulsatilla, sulphur.

A. R. — If the inflammation has not yet disappeared, apply bandages of cold water, with one-twelfth part No. 2. Afterwards, wash frequently with warm soap-suds.

BLOOD-SPAVIN. — See Spavin.

BOTS. — The larvæ of the gad-fly, which hang on the inside of the stomach.

REMEDY. — A run on the grass is the most effectual remedy.

BREAKDOWN. — See Curb.

BROKEN WIND. — A chronic illness; bad breathing and cough, which, at times, accompanies indigestion.

H. R. — If the sickness is in consequence of an inflammation of the lungs, give aconite, three doses; afterwards, bryonia; later, squilla and calcarea.

A. R. — Nature frequently effects a cure without any physicking, after the cause of the disease is removed. If it be caused by dusty and musty food, this must be changed to good hay, moistened with salt water, carrots, bran, and plenty of water. Sometimes a moderate hunger-cure will be of great service. Walks to the pasture, and some occupation, but not faster than a walk, are better than complete rest. Bleeding will frequently be of advantage. No. 7 or 8 may be given three times a day.

BRUISES. — Bruises may either injure the skin or not. They cause an increasing inflammation and an extensive swelling, with moderate pain. They occur most frequently *over the eye*, on the temples, etc.

H. R. — Arnica, internally and externally. For external use, take from twenty to twenty-five drops of the pure tincture, with one quart of cold water, for wet bandages. Symphytum officinale, if a bone or the skin is injured, externally and internally. To be used as arnica, above.

A. R. — Cold-water bandages, with one-twelfth part of No. 2, if applied sufficiently long, will almost always help, unless the bruise is of long standing. If the injured limb is afterwards weak, rub with No. 11. If the swelling does not give way, make warm fomentations of decoctions of linseed or hay.

N. B. — If matter has collected, it must be opened with a knife.

BRUISE OF THE SOLE. — Caused by travelling on hard pavements, and should be attended to without delay.

H. R. — In the first stage, if accompanied by inflammation, use arnica internally and externally; also conium and arsenicum. If matter has collected, use squilla, conium, antimonium-crudum, nux-vomica, pulsatilla, and mercurius-vivus.

A. R. — See Bruises. If matter and blood has collected under the sole, it must be opened with the knife.

CANKER IN THE FOOT.—A separation of the horn from the sensible part of the foot, and the growth of fungus-matter, occupying a portion, or even the whole of the sole and frog.

H. R. — A clean and dry stable. Internally, spiritus sulphuratus.

A. R. — Common charcoal-powder mixed with equal parts of sulphur, to lay on. As a caustic, cuprum sulphuricum, or chloride of lime, to sprinkle on.

CAPPED-HOCK.—A swelling of the point of the hock behind, caused by an enlargement of a sac, containing synovial fluid.

H. R. — If the sickness is not far advanced — warm and movable — arnica; if firmly seated — sulphur; if with convulsively-contracting lameness — rhus-toxicodendron: if moist, with a soft spot — silica; if of very long standing — conium, clematis, and mercurius-vivus.

A. R. — Ice bandages. After two or three days, apply cold water, with one-eighth part of No. 2. In some cases, warm bandages will be found useful. If no improvement is apparent, then blister with No. 5 or 6; and if the sickness is of very long standing, firing must be used.

CLAP OF THE SINEWS.—(See Plate II, Fig. I, No. 22.) An inflammation, with swelling and pain of the sinews, rendering them powerless. They frequently harden, and pass into grogginess.

H. R. — If caused by bruising, blows, or over-exertion, use arnica, externally and internally. Internally, rhus-toxicodendron, phosphorus, silica, sepia. If the disease be very obdurate, with severe swellings, conium, mercurius-solubilis, licopodium, belladonna, china, sulphur.

A. R. — Baths of warm soap-suds; also, washings and baths of a decoction of hay, and every other day a rubbing of the affected parts, three times a day, with ointment of quicksilver. River baths, and rubbing with new rum, are of great service sometimes. In very obdurate cases, blister with No. 5 or 6. The last resort is firing.

COLIC.—This is a very common disease, beginning with an appearance of uneasiness; the horse paws his litter, sometimes makes ineffectual attempts to stall, stamps with his feet, gathers up his legs and lies down heavily, groans and looks round, rolls on his back, etc. It produces an irregularity in the passage of the food through the intestinal canal, and causes great pain.

H. R. — From one to three doses of aconite; afterwards, arsenicum: with costiveness, only one dose. If the pain is removed and the costiveness remains, nuxvomica and opium; with retention of urine, cantharides and hyoseyarnus: with swollen, bloated body, chamomilla. When from green food, colchicum, calcarea,

aceticæ; from taking cold, chamomilla, alternately with aconite; with thin dung, of bad smell, pulsatilla.

A. R. — Rub the flanks and the belly with two ounces of oil of turpentine; that will frequently remove the sickness; if not, let from six to eight ounces of blood. Cover the horse warmly, and walk him slowly. Inwardly, give No. 9 or 12, at first every half hour. An injection of warm soap-suds, with a quarter of an ounce of common salt, will be of great assistance, and will often be sufficient without any other remedy.

CONTRACTION OF THE FOOT.—A drawing together of the heel-walls of the foot, and an accompanying reduction of the size of the frog.

H. R. — Sulphur and sepia; squilla and rhus-toxicodendron will likewise help much.

A. R. — Apply to a good farrier, and let him shoe the horse with a circular shoe. Put the horse, also, two or three hours every day, into running water, or into the pasture, without shoes.

CORN.—A bruising of the sensible sole, and an accompanying rupture of its blood-vessels at the angles, between the wall of the foot and the bar.

H. R. — When accompanied by severe inflammation, one or two doses of aconite. Arnica inwardly and outwardly.

A. R. — First of all, remove the cause, — the badly fitting shoe, the pebble, etc. Then put cold bandages around, and afterwards warm ones. It will be necessary, frequently, to open the sole, and to remove the blood or pus, and afterwards to have the horse shod by a skilful farrier.

CURB.—An enlargement of the back part of the hock, three or four inches below its point, and a strain of the ligaments of the tendon, or a rupture of its sheath, generally caused by blows.

H. R. — Arnica, inside and outside. Rhus-toxicodendron, conium, and sepia, when the disease is of long standing.

A. R. — Treatment same as for Capped-Hock.

DIABETES.—Excessive discharge of watery urine, accompanied by thirst and debility.

H. R. — Lycopodium and mercurius-vivus.

A. R. — If the disease is caused by cold, the horse must be kept warm, and have lukewarm water, mixed with linseed meal, for drink, and good sweet hay. Afterwards, decoctions of willow (ozier) and oak-bark, given inwardly, which will render good service. Rub also about the kidneys with New-England rum.

DISTEMPER.—An epidemic catarrhal fever, which spreads over a whole country, at certain seasons of the year.

H. R. — Aconite, if there is inflammation; mercurius-vivus, in case of unnatural or copious flow of saliva; belladonna, with swelling of the head; arsenicum, when the discharge from the nostrils continues, and watery swelling appears; bryonia, after aconite.

A. R. — The horse must be kept at an equal, warm temperature; in the beginning of the disease, give No. 9. As soon as the discharge from the nose begins, the head is to be steamed, and electuary No. 7 is to be given besides. If the glands, under the jaw, are swollen, rub them with No. 10.

ENTERITIS AND GASTRITIS.—Inflammation of the bowels and the stomach, with all the vehement symptoms of the colic.

H. R. — Aconite every ten or fifteen minutes; arsenicum after two hours; nuxvomica or opium, if the costiveness continues; cantharides or hyoseyamus, if there is retention of urine.

A. R. — Take from one of the jugular veins one or two quarts of blood; give thin gruel or decoction of flaxseed with castor oil. The whole belly should be rubbed with two ounces of oil of turpentine. Rub the horse all over, and cover him warm. After the lapse of from half an hour to an hour, give No. 12. Steaming of the whole back part of the body (see Baths), and clysters of gruel, will be of great value. If mortification threatens, give No. 13.

ERYSIPELAS (QUARTER-evil, BLACK-LEG).—An inflammation in the skin. It is simple, if mere swelling of the legs, with heat, great pain, and difficulty of motion; if after from one to three days small pustules appear, it is called *E. pustulosum*. A decided species of the same is *Scratches*. Another kind is called *E. edematodes*, decidedly limited towards the body, if in the course of from five to ten hours an impression made by the finger will remain. *E. gangrenosus*, if gangrene should appear as a further symptom.

R. — Spare diet; light, soft feed; warm, dry stabling; cutting off all draught; warm covering, and packing of the swollen parts in woolen blankets.

H. R. — Aconitum, belladonna.

A. R. — Externally, No. 26; or fomentations, with an infusion of mallows, camomile, or hay. Internally, No. 9, in same cases; clysters, with soap-suds and a little salt, to remove obstructions. Often the inflammation will disappear, but not the swelling; then application of ointment of quicksilver, and cold-water bandages will be found serviceable.

FARCY.—A contagious disease of the lymphatic vessels (Plate II, No. 17,) and glands. Appears as small tumors, called farcy-buds or

buttons, on different parts of the surface; these become gradually soft or suppurate, and burst, becoming a foul ulcer. The vessels look like worms or strings. This disease is intimately connected with glanders.

H. R. — Aconite, if accompanied with fever and hot and painful tumors. Arsenicum and china, alternately, if the buds are cold; rhus-toxicodendron, sulphur, and assafetida are especially to be recommended.

A. R. — Sound horses must be immediately removed from the sick one. Then open the pimples with a knife or a lancet; wash the wounds thoroughly with a strong lotion of corrosive sublimate, dissolved in rectified spirit, and cauterize the wounds to the bottom. After three or four days, wash them with warm soap-suds, moisten them with vinegar, and put common salt and wood ashes on them, in equal parts. Internally, give daily, four ounces No. 14. The animal should be generously fed, kept clean, have sea-baths, fresh air, and moderate exercise.

FEVER. — This shows itself in alternating heat and cold, increased thirst, accelerated pulse, redness of the mucous membrane, and a faulty secretion. It has several degrees. According to their characteristics, they are classed as inflammatory, putrid, typhoid, &c. Fever is, mostly, a health-restoring disease, or the ally of other evils, and frequently receives its name from them, as inflammatory, catarrhal, bilious fever, &c.

A. R. — After removing the cause, it is well to rub the horse, to produce the necessary warmth; also, give a slight cathartic (glauber-salts). Give shorts, for feed, and keep the animal in a healthy, dry stable, free from draught. Fevers, when mentioned under their respective names, have their proper remedies designated in that place.

FISTULA. — A deep, narrow, callous ulcer, with a narrow orifice, and without disposition to heal, arising, generally, from abscesses.

H. R. — Pulsatilla, alternately with ledrum palustre. Lycopodium, when the orifice is very narrow; calcarea-carbonica, in almost all its different forms.

A. R. — Warm, spicy, aromatic fomentations, with salve No. 16, will frequently cure the disease. In obstinate cases the ulcer must be opened, so that all the matter shall run out. Touch over with lunar caustic, and tie the wound up with No. 16. Frequently recourse must be had to the hot iron.

FISTULA IN THE POLL, OR POLL-EVIL. — A troublesome ulcer on the head.

For treatment. — See Fistula.

FOOT (PRICK IN THE FOOT).—A wound of the laminae, by a badly-driven nail, or the penetration of a sharp substance to the sensible sole or frog.

TREATMENT.—Extend the opening, and pour a few drops of arnica, or balm No. 17, into the wound, and take care that it is kept clean. A few local baths or cold application will prevent inflammation.

FOOT (PUMICED, OR HOOF-BOUND).—(Plate IV, Fig. 2.) A foot, of which the sole, in consequence of disease, descends to a level with, or below, the wall of the hoof. The wall is bruised and partly broken.

TREATMENT.—Only a good farrier can help, so that the horse may do farm-work.

FOUNDER, ACUTE.—An inflammation of the laminae of the foot, originating in too hard work, or caused by cold. This disease is not confined to the hoof, but spreads over the sensible laminae, or fleshy plates on the front and sides of the coffin-bone. It is always accompanied by fever.

H. R.—Aconite, if there is inflammation; six drops every one, two, or three hours. Bryonia, when the limbs are stiff and the joints swollen; six drops every two hours. Veratrum, if it is brought on by violent exercise; six drops every two hours. Arsenicum, when caused by bad or heating food, or by a cold drink when overheated. Rhus-toxicodendron, if there is much pain in the feet, and the animal is very stiff in his movements; six drops or eight globules three times a day. In the beginning, a cold-water poultice; later, warm hay poultice on the hoof will be found useful.

A. R.—Cold applications; and still better to put the horse in running water, up to the knees. If the disease is very violent, accompanied by violent fever, it will be necessary to bleed him freely on the jugular vein (two to three quarts), and on both feet. Internally, No. 9 or 13. After a few days, warm fomentations will render great service.

FOUNDER, CHRONIC.—This is a species of founder, insidious in its attacks and destructive to the horse. It produces less severe lameness than acute founder.

H. R.—Aconite, arsenicum, if attended with increased pains. Rhus-toxicodendron, if there is a change for the worse, after some exertion.

A. R.—Local cold baths, pasturing upon moist ground, will help greatly.

GASTRITIS.—See Enteritis.

GALL. — A sore, produced by pressure or chafing of the saddle or harness.

TREATMENT. — See Bruise.

GLANDERS. — A contagious disease to animals and man, frequently resulting from neglected strangles, common cold, distemper, the principal symptoms of which are :

1. A sickly discharge, sticking to the nostrils.
2. A swelling of the jugular glands ; they become hard, but without pain.
3. Ulceration of the membrane, lining the whole cavity of the nose. (See Plate II, Fig. I, Nos. 1, 2, 3, and Fig. II.)

The cure of this disease has been frequently asserted ; but this must have been either by mistaking some slight attack of distemper or chronic strangles for the glanders, or by empty boasting. Glanders are incurable.

GREASE. — An inflammation of the skin of the heels, with discharge of offensive matter, which renders them dry and hard, and causes them to crack.

TREATMENT. — A clean, dry stable, frequent washing with cold or warm soap-suds, and afterwards wiped dry. Sometimes, purgative No. 3 will do good.

GROGGINESS. — A weakness and tottering condition of the fore legs, accompanied usually by a knuckling over of the fetlock-joint. A horse is said to be *groggy*, when he has a tenderness or stiffness about the feet, which causes him to go in an uneasy, hopping manner. (Plate II. No. 31.)

H. R. — If the case is recent — arnica, rhus-toxicodendron. If of long standing — mercurius-solubilis, conium, petroleum, silica.

A. R. — See Clap of the Sinews.

HEAVES. — See Broken Wind.

HERNIA. — A protrusion of the intestines through a natural or artificial opening in the belly — rupture. (See Plate II. No. 34, 35.)

TREATMENT. — If it be of recent date, make bolsters of oakum, and fasten them tightly around the horse with a strap. Give internally, arnica, and if there is inflammation, aconite. When the hernia is strangulated, a veterinary surgeon cannot be dispensed with.

KNEES, BROKEN.—The skin, and at times the sac of the joint, is broken, by falling on the knees. (See Wounds.)

LOCAL INFLAMMATION is characterized by redness, swelling, heat, and pain, and may be external or internal. The former, if caused by pressure, blows, etc., will be best abated by application of cold water, either pure or with one-twelfth part of No. 2. When benefit is derived from these applications, then continue with warm fomentations of hay or chamomile, until the inflammation is gone. Should, however, a hard swelling remain, then rub the spot with No. 11.

LAMINITIS, OR LAMENESS.—See Founder.

LAMPAS.—A swelling, and sometimes tenderness of the roof of the mouth, adjoining the front teeth.

H. R. — *Mercurius-vivus*, *aconite*, *natrum muriaticum*, and sulphur.

A. R. — Soft, moist food; shorts for a few days. The mouth must be washed, besides, with a mixture of honey, vinegar, and water, several times every day.

LARYNGITIS.—Inflammation of the upper part of the windpipe, called larynx. Symptoms, drawn-up neck, difficulty in swallowing, snorting, sometimes a dry cough, combined with all the symptoms of a catarrhal fever.

H. R. — *Aconite*. *Belladonna*, when there is difficulty in swallowing. *Spongia*, if swollen. *Mercurius-vivus*, if increased secretions of mucous in the mouth.

A. R. — Gruel, and soft, moist food. (Shorts.) In the beginning, No. 9, internally; if cough becomes loose, and expectoration takes place, No. 7. Rub externally, with No. 10; afterwards, steaming through the mouth. (See Baths.)

LOCKED-JAW.—A constant spasm, and rigidity of all the voluntary muscles. Usually fatal; a cure will rarely succeed.

H. R. — *Nux-vomica*, five or six times; afterwards, *arsenicum* and *nux-vomica* alternately. *Ipecacuanha*, if the appetite does not return after the disease is cured.

A. R. — Perfect rest. The horse must not be frightened at all. Steam baths have sometimes helped; at other times, baths of warm soap-suds or ley; or, finally, constant rubbing all over the body. When congestions occur, applications of cold water, or even ice, will help greatly. With costiveness, clysters of warm soap-suds. Squirted cold water into the mouth will help materially.

LUXATION.—A partial displacement of the bones of a joint.

H. R. — *Arnica*, inside and outside. *Rhus-toxicodendron*.

A. R. — Application of cold water, or even ice, to prevent inflammation. Afterwards, rub on No. 11.

MALLENDERS. — Scurvy eruptions on the back side of the knee of the fore-leg, or on the bend of the knee.

H. R. — Scabissinum equorum, and thuja. Sulphur, as an after-cure. Petroleum, with lameness.

A. R. — Frequent washing with soap-suds, or diluted ley. If the disease is of long standing, moisten with No. 18, besides washing as above.

MANGE. — A disease which manifests itself in the skin, and causes a horse to rub himself continually.

TREATMENT. — Bring the horse frequently into the open air; keep him perfectly clean, and wash him every day.

MEGRIMS. — See Staggers.

MOON-BLINDNESS. — See Ophthalmia.

NASAL GLEET. — An increased and thickened discharge from the nostrils. A symptom of glanders, or other diseases of the respiratory organs.

A. R. — Inhalation of the vapor of steeped hay, or of hot vinegar, or rosin, thrown on hot coals, will abate the discharge, if the cause of the disease is removed.

NAVICULAR DISEASE. — Inflammation, or ankylosis (growing together) at the joint formed by the coffin-bone and the lower postern-bone, in connection with the navicular bone. (An inflammation of the internal parts of the hoof.)

H. R. — Aconite, conium, arsenicum, and mercurius-vivus.

A. R. — Cold baths, and cold-water applications; afterwards, warm fomentations. No. 5, rubbed in, will materially assist the cure.

OPHTHALMIA. — A frequently-occurring disease of the eyes. Simple, causes mechanical; a mere inflammation of the eyes, and sometimes its lids.

H. R. — Aconitum, internally; externally, arnica-tincture, diluted with water, as poultice.

A. R. — Leadwater, externally; if very painful, add twenty drops laudanum to each ounce of the leadwater.

OPHTHALMIA, PERIODICA (MOON-BLINDNESS).—Symptoms much the same as simple Ophthalmia. The tears appear muddy, and the pupil closed. The disease disappears after from three to ten days; reappears at regular intervals, and will end in Albugo, if neglected.

H. R. — Euphrasia, natrum-muriaticum, antimonium-crudum, pulsatilla.

OPHTHALMIA, RHEUMATICA.—Caused by internal rheumatic inflammations, always accompanied by fever. Little swelling and redness, great pain, and sharp tears.

R. — Treat the original disease. Cover the eyes with *dry* aromatic herbs, in bags. Protect the animal against dampness and draught.

PALSY OR PARALYSIS.—A loss of muscular power, or an inability to move any part of the body.

H. R. — Aeonite, arsenicum, arnica, belladonna, bryonica, cocculus, calcarea carbonica, causticum, dulcamara, rhus-toxicodendron, ruta, nux-vomica, sulphur.

A. R. — Rub hard, with dry flannel or straw; then cold-water applications. Rub the lame part, twice a day, with oleum phosphoratum. (See No. 19.)

POLL-EVIL.—See Fistula in the Head.

QUARTER-CRACK.—See Sand-crack.

QUARTER-EVIL.—See Erysipelas.

QUITTOR.—A deeply-seated ulceration in the foot, mostly the result from a neglected or badly-treated wound. Symptoms are, a painfully-inflamed swelling on the coronet of the hoof, with one or more small suppurating openings.

R. — If matter has collected, the sole of the hoof must be opened. Salve No. 15 or 16, applied twice daily, after a half-hour's fomentation with an infusion of hay, each time, will be found very serviceable. For the rest, see Fistula.

RHEUMATISM.—An inflamed, irritated condition of the sinewy structures, affecting chiefly the parts around the shoulders, hips, and kidneys. *Causes.*—Sudden changes of weather, peculiar condition of atmospheric electricity, too cold diet, and catching cold generally.

Spare diet, warmth, and often-repeated rubbing of the suffering parts, with straw or woollen, will cure most new cases.

H. R. — If very lame, bryonia; if overworked, rhus-toxicodendron or veratrum; arsenicum, if caused by cold drink or food.

A. R. — Rub with No. 11. Even blister with No. 5 or 6. If feverish, No. 9 or 12, internally.

RINGBONE.—A bony excrecence on the lower part of the postern, generally, but not always, causing lameness.

H. R. — Rhus-tox, afterwards arnica, calcaria, jodium, lycopodium, mercurius-solubilis, and silica.

A. R. — Perfect rest; if accompanied with inflammation, cold-water applications, even with one-twelfth part of No. 2. Should this not help, then blister the sick part with No. 5, or use the firing.

ROARING.—A disease which takes its name from the wheezing noise the horse makes in breathing, when put in quick motion. It is caused by a contraction or effusion of lymph in the throat.

SALLENDERS.—See Mallenders.

SAND-CRACK. COW-CRACK OR TOE-CRACK. QUARTER-CRACK.—See Plate II, Nos. 28, 46, 47.

H. R. — Arnica, phosphorus, sepia, silica, squilla, sulphur. In shoeing the horse, trim the sides of the crack, to prevent their touching the iron; keep the crack clean, fill it with No. 23, and rub the coronet with No. 24. Sometimes an operation will be necessary.

SCAB.—*Symptoms.* The animal keeps rubbing against any hard object. It will also scratch and gnaw itself with feet and teeth. Small knots and humid blisters will appear on the skin, the hair will entangle and fall out, especially on the croup, shoulders, and the inner side of the thighs. Strengthening food and cleanliness are capital remedies.

H. R. — If humid, sulphur, rhus-toxicodendron; if dry, knotty, and scurfy, staphisagria, sulphur; with boils, arsenicum; if obstinate, and combined with cough, carbo-vegetabilis; if scaly, with loss of hair, dulcamara; if the irruption is in groups, clematis; watery-pus, jacea; on the appearance of skin-scratches, sarsaparilla; scab on the tail-root, staphisagria, sepia, sulphur; in combination with scratches, thuja; scab in the mane, vinea.

A. R. — Rub the diseased part well with a mixture of one part coal-tar and two parts soft-soap, and wash clean, the following day, with warm water. Repeat this process every other day, until cured. Keep the animal warm and well covered all the time.

SCRATCHES.—A species of erysipelas in the pastern-joint, which soon becomes a sore, with a singular fluid. Horses affected with them walk lame on leaving the stable. A dry stable, light feed, and fire-

quent washing of the sore are absolutely necessary to complete the cure.

H. R. — Thuja.

A. R. — A bath of warm soap-suds, once or twice a day, has always had a good effect. Internally, give No. 9, without the addition of saltpetre. If the smell from the sore becomes too offensive, powder it with charcoal dust. If hardening should take place, use ointment of quicksilver. The last resort is caustic, and even firing. Cathartic No. 3 has proved valuable, sometimes.

SPAVIN (BONE). — A bony enlargement (luxation) of the lower part of the back-joint, on the inner side of the leg, with more or less inflammation.

H. R. — If the joint be very warm, arnica and rhus-tox. *Mercurius-solubilis*, if the spavin be fully developed with lameness. *Pulsatilla*, iodium, if accompanied with painful swelling.

A. R. — Application of cold water or even ice, with one-twelfth part of No. 2. If the inflammation be moderate, it must be washed with warm soap-suds; afterwards, vesicatory No. 5 or 6. Should this not help, the firing must be used. (See Plate II, Fig. 1, No. 41.)

SPAVIN (BLOOD). — Varix (rupture of the veins) of the cannon-bone vein, on the inside of the hock-joint.

H. R. — Rhus-tox. Afterwards, iodium, arnica, thuja.

A. R. — If the disease is of recent date, application of cold water, and properly-arranged bandages, will be of great service.

SPAVIN (BOG). — A soft or hard swelling on the inside of the hock-joint, from expansion of the joint sac, which contains synovia.

H. R. — In the beginning, arnica, rhus-tox; after some time, belladonna; later, *pulsatilla*, thuja, arsenicum, and iodium.

A. R. — If there be inflammation, frequent applications of cold water, mixed with one-twelfth part of No. 2. If the sickness be of long standing, blistering-plaster No. 5 or 6, and if that should not help, the firing must be used.

SPEEDY-CUT. — A wound on the inside of the fore-leg, near the knee, made by the striking of the shoe of the opposite foot in fast travelling.

REMEDIES. — See Wounds.

SPLINT OR SPLENT. — Bony excrescences, which grow on the inside of the shank-bone. They are generally caused by the striking

of the shoe of the opposite foot when travelling fast. Is frequently the consequence of a Speedy-cut, and should be treated like Ring-bone.

STAGGERS OR MEGGRIMS.—A rushing of blood to the head, causing temporary unconsciousness, and often causing the horse to stagger or fall.

H. R. — Aconite. With severe attacks, stramonium and *oeculus*. Arnica, with drowsiness. China or belladonna may be also given with advantage.

A. R. — Give but little nutritious food; bran, with much water, take from two to three quarts of blood; give No. 9, internally.

STRANGLES.—A disease sometimes called *Cold Distemper*, with inflammation and swelling of the glands, under the jaw. The breathing rendered difficult; at times the glands break, discharges pus, and the horse recovers. Easily-digestible food — bran, with water — will frequently cure the disease, if the horse is kept warm.

H. R. — Aconite, *dulcamara*, belladonna, and *hepar sulphuris*.

A. R. — Keep the swelling warm, rub with No. 10, and treat it similarly to *distemper*.

STRANGUARY.—Inflammation of the bladder, and of its neck. A disease which seldom occurs. Symptoms very much like colic.

H. R. — Aconite every fifteen minutes; then, *cantharides*, and at last, *hyosciamus*.

A. R. — Take immediately from two to three quarts of blood; every hour some thin gruel, with one or two drachms of potash of nitre. Externally, fomentations of hay all along the spine in the flanks. Rubbing with No. 11.

Light farinaceous food and thin gruel, besides keeping the horse warm.

TETANUS.— See Locked-Jaw.

THOROUGH-PIN.—A sort of wind-galls, or swelling upon the hock, and between the cord and the bone. It can be pressed through from side to side.

H. R. — Arnica, *rhustox*, *lycopodium*, arsenic, belladonna, *pulsatilla*, to be given successively.

A. R. — With recent cases, cold-water applications. With cases of long standing, rub in No. 5 or 6, or use the firing.

THRUSH.—A softening of the frog of the foot, accompanied by an offensive discharge of pus. Clean, dry stabling, is required first of all.

H. R. — Spiritus-sulphuratus.

A. R. — Wash, with half ounce of chloride of lime in a pint of water. Strew it with charcoal powder, or burnt lime.

TREAD.—A wound of the coronet, inflicted by other feet.

H. R. — Arnica, internally and externally. Lachesis, if the disease has been neglected.

A. R. — Wash with cold water, bandage afterwards with No. 2, and tie it up well.

The wound must be washed and kept clean.

WARTS.—Spongy excrescences, which arise in various parts of the body. They often disappear without any medical aid.

H. R. — If hard and dry, dulcamara, sulphur; with formation of boils, arsenicum; bloody and painful, causticum; humid, thuja, sepia; small, in great numbers on the lips, calcaria-carbonica.

A. R. — Single, with pedicles, may be under-bound with waxed silk thread. Large warts may be cut out with the knife, and the root fired.

WIND-GALLS.—Elastic tumors each side of the back sinews, immediately above the fetlock joint. (See Thorough-pin.)

WOUNDS,—after they have been carefully cleansed with cold water.

H. R. — Arnica-water, externally, if the wound is not deep. Arnica, internally and externally, if the wound is deeper. Symphytum, if bones are injured. Conium, for wounds caused by contusion. Rhus-toxicodendron, or arsenicum, for wounds with dislocation. Millefolium, in case of severe bleeding, externally, by means of pads of oakum, tinder, or even spiders' webs. Aconite and arnica, alternately, taken internally, with strong inflammation and fever. Mercurius and asfoetida, when they smell badly, and suppurate. Chamomilla, sepia, arsenicum, when proud flesh begins to form.

A. R. — If the bleeding is severe, sprinkle plenty of flour starch, gum-arabic, or rosin upon it, and tie it up carefully. Quite as useful are pads of oakum, moistened with a solution of alum and sulphate of iron in vinegar and spirits

of wine (alcohol). In case of very severe bleeding, apply firing until a scab forms. If a severe inflammation sets in, moisten the afflicted part, frequently, with No. 2. Many wounds will heal immediately; if not, suppuration begins, which must be assisted by applying the suppurating salves No. 15 or 16, until healed. Proud flesh is removed by putting sugar, burnt alum, or tobacco-ashes on, or by sprinkling with lunar caustic.

RECIPES

REFERRED TO IN THE TREATMENT OF DISEASES.

1. Sulphate of zinc, two drachms; water, ten ounces; dissolve, and add tincture of opium and tincture of arnica, of each about half an ounce.

2. Tincture of arnica and vinegar of lead, equal parts of each, mixed with twelve parts of water, for poultice.

3. Hepatic aloes, one ounce; calomel, half drachm; castile soap, half ounce; form them into a mass with mucilage of gum-arabic. Pill, for purging, to be given in one dose.

4. Oil of rosemary, two drachms; spirit of wine, two ounces; water, eight ounces. Externally, to rub with.

5. Spanish flies (cantharides), two drachms, mixed with oil of laurel, one ounce. Acid salve, to rub with.

6. Tartar-emetic, one part; hog's lard, two parts; mixed. Acid salve, to rub with.

7. Golden sulphuret of antimony, two drachms; sal ammonia, one and a half ounces; aniseseed and flaxseed, of each four ounces; sulphate of soda, twelve ounces; honey (or molasses), two pounds. Mix and beat them together, so as to form an electuary, for the chest. To be given daily, every three hours, each time a ball of the size of a hen's egg.

8. Root of elecampane, eight ounces; aniseseed, four ounces; sulphur, three ounces; spirits of turpentine, one ounce; honey (or

molasses), one and a half pounds. Mix and beat them together, so as to form an electuary. Every three hours, as much as the size of a hen's egg.

9. Nitrate of potassa and sulphur, of each about two ounces; flaxseed, four ounces; sulphate of soda, twelve ounces; water. Mix and beat them together, so as to form an electuary. Every one or two hours, as much as the size of a hen's egg.

10. Spirits of turpentine, half ounce; hog's lard, two ounces; mixed. Used for rubbing with, in the morning, noon, and evening.

11. Soap, half ounce; camphor, half ounce; spirit of ammonia, one ounce; spirit of wine, eight ounces; tincture of opium; mixed. To rub with, three or four times a day.

12. Nitrate of potassa, two ounces; sulphate of soda, twelve ounces; flaxseed, four ounces; water. Mix them, and form an electuary. Every one or two hours, as much as the size of a hen's egg.

13. Camphor, two drachms; nitrate of potassa, two ounces; flaxseed one ounce; molasses, three ounces. Mix them, and form an electuary. To be given three times, at intervals of half an hour.

14. Sulphuret of antimony, three pounds; root of gentian, two pounds; hemlock, two ounces; spirits of turpentine, four ounces. Rub them together, to a powder.

15. Venice turpentine, two ounces; honey, one and a half ounces. Mixed. Suppurative salve.

16. Venice turpentine, one ounce. Mix and grind with the yolk of one egg. Suppurative salve.

17. Gum-benzoin, in powder, and hepatic aloes, of each one ounce; spirit of wine, six ounces. Digest, with a gentle heat, for two or three days, and filter. Balsam for wounds.

18. Spirit of ammonia, half ounce; sulphate of copper, one ounce; alum and verdigris, of each one drachm; water, one pint. Dissolve, for external use.

19. Phosphorus, half ounce; linseed-oil, eight ounces. Dissolve. To rub with, once a day.—N. B. Must be prepared by a practical apothecary.

20. Spirits of wine and extract of lead (No. 22), of each, one ounce; water, one pound; mixed. Leadwater, for external use.

21. *Tincture of Arnica*.—Flowers of arnica, four ounces; spirit of wine, one pound. Digest, with a gentle heat, for two days, and filter.

22. *Extract of Lead*.—Litharge, four ounces; sugar of lead, six ounces; water, distilled, sixteen ounces. Digest, with a gentle heat, for six days, and filter.

23. *Cerate*.—Mutton-tallow, yellow wax, rosin, Venice turpentine, each two ounces. Melt over a slow fire, and mix well.

24. Venice turpentine and oil of laurel, each two ounces; hog's lard, one pound; melt over a slow fire, and then mix thoroughly with two ounces of juice of onions.

25. *Spirit of Camphor*.—Camphor, one ounce; alcohol, one pound. Dissolve.

26. *Goulard's Water*.—Spirit of Camphor (No. 24), one ounce; extract of lead (No. 22), one ounce; water, one pound. Mix well.

HOW TO BUY A HORSE.

In order to make a thorough examination, it becomes necessary to consider the height and condition of the horse, not only in the stable, but also when led out of the stall, and outside the stable; in a state of repose, and in motion.

Horses are measured with tape and rule. The tape-measure is somewhat deceptive, as a low horse, with a well-rounded, fleshy shoulder, may measure as much as a taller but thinner animal. The rule is, therefore, to be preferred; this is a simple stick, with a short, movable arm, at right angles; the long part is divided into inches. To measure a horse correctly, it should stand perfectly level, and care taken that the seller practices no tricks, such as putting the fore arm on higher ground; chucking it under the chin, to make it hold up its head, or even grasping the mane from the opposite side, apparently for the purpose of noticing the measurement. Notice should be taken, also, whether the horse is shod or unshod; whether the shoes are high or low. To secure a good span, the height of the head should be observed; also, position and movement of the crest (neck). A good match, as to color, is of less consequence than a similarity of temper. The examination, in the stable, is a delicate matter. A horse which lies down, and, on being called, does not rise quickly, generally suffers from bad feet; a tired animal stands on two or three legs, and is apt to lean its head against the manger; this, however, is the case also with lazy horses. Crib-biters are easily found out, if the seller has not previously smeared the crib with soap or grease.

Perfectly sound and kind horses look at persons entering the stable, pleasantly and fearlessly, and not unfrequently neigh. Tricky ones lay back their ears, snort and snap. Shy horses always act timid and frightened. Slow eating, and difficult, audible swallowing, are signs of trouble in the gullet. Biting of crib and halter, also a drawn-up belly, betoken animals that feed poorly. Worms, in young horses, are easily detected; the horse thus affected, rubs its muzzle against the crib. Horses affected with the staggers take large quan-

tities of hay out of the rack, throw it down, eat it slowly, and at intervals, seemingly listening as if surprised. They keep their food in the mouth for a long time without swallowing it, and have a dull, fixed look; they also push their heads against the wall, or into a dark corner. It is an often-practised trick with dealers to drop some oil into the ears of such horses, or a little cayenne pepper applied to the passage, to make them look attentive and spirited. Broken-winded horses have a short, dull cough, with a double beating of the flanks.

Are the horse's feet on a level, and one hip higher than the other? then he is one-sided. If perceptible in any other position, it must be the result of disease in the muscular part of the croup.

Stiff hairs in the tail, and bare places on the same, indicate itching; sore spots, suppurated sores, or scabs, betray the scab. Horses with visible or invisible spavin, are loath to step from one side to the other. Wind-galls seldom impair the usefulness of the animal.

Clap of the sinews betrays itself through swelling and pain in the tendon, hindering the horse from stepping firmly, which ultimately results in a stiff foot.

The mallenders, appearing mostly in the hind pastern-joints, are recognized by more or less deep cracks and sores, emitting an unpleasant, bad-smelling fluid. This sign distinguishes it from wounds caused by overreaching. Neglected cracks, with warts covered with stiff, bristly hairs, are the indication of malignant mallenders, known under the name of crown-scab. The hinder hoofs should be well examined, particularly the coronet, to see about wounds from striking. Look well at the frog, to see if there are any ulcers or cancer; the latter disease may be considered incurable.

THE EXAMINATION OF THE HORSE, OUTSIDE THE STABLE, relates particularly to eyes, muzzle, and nose. The contraction and expansion of the pupil of the eye deserves special attention. Amaurosis may be recognized by an immovable pupil, and a beautiful black coloring of the eye.

Albugo may be detected by a speck, of a white or mother-of-pearl color, in the eye, or a turbid look of the same. Closed eyelids, with inflammation and watery flow, are mostly the cause of some hay or dust, or even of whip-cuts, and seldom dangerous. The last-mentioned cause is frequently adduced by unprincipled horse-dealers, as a pretext to conceal more dangerous evils; and the utmost caution is needed. Slight inflammation and dimness of the eye result, sometimes, from the shedding of the teeth. Is one eye smaller than the other, it indicates impaired or lost sight. Wrinkles in the upper

eyelid betray a weak sight. Periodical inflammation of the eyes may be recognized by the peculiar position of the inside corner of the eye, continuous slight flow of tears, hairless shiny spots below the eyes, and shunning the light.

Next in order, comes the examination of the mouth. Find out the age, but be not deceived by artificially-marked teeth. Often the dealer likes his horse to seem older than he really is, which he effects by drawing two milk-teeth, thus making the horse appear one year older. If the fore and middle teeth appear badly worn, it indicates a crib-biter. Knots on the lips, as large or larger than peas, betray farcy; also knots and stringy swellings on the throat, the ribs, and the inner part of the hind-leg. The nose and throat deserve careful looking into. A greenish yellow or whitish flow, from one or both nostrils, more or less swelling of the glands of the throat, and a cough, with expectoration of phlegm, shows the strangles. Suppuration of the glands of the throat results from the same cause, and are not dangerous. A sticky, ash-grey flow from the nose, and milk-white membrane, with a hard, movable, and almost painless appearance of the glands of the throat, are bad signs; but if, at the same time, there are ulcers on the inside partition of the nose, then it is a complete case of glanders.

Dishonest dealers clean nose and nostrils, put oil or fat inside, to produce an easy flow, and prevent the hardening of the same. They also employ caustic to produce a healthy appearance of the glands.

The examination of the horse, out of the stable, should be both in a state of repose and action. A healthy, lively animal breathes, on coming into the air, easily, and with open nostrils; while a wind-broken horse breathes with widely-extended ones, making a singular motion with the same. Horses thus affected are exercised before the sale, which improves their breathing. Dropping or hanging the lower lip, is a sign of prostration. Mettlesome horses are apt to hang their tongues out. A touch with a hot iron is the rogue's cure of this fault.

After having carefully examined ears, gullet, crest, the posture of the head and neck, the mane, chest, withers, shoulders, fore-arm, knee, shank, pastern and hoof, lift his fore-foot, to look at the sole, and also to find out whether the horse can be shod; and proceed likewise with his hind-legs. Look also at the spots where the animal might have been bled, or had application of an issue, on head, chest, belly, and throat.

Lifting the hoof, (stepping or reaching), and putting the foot down, are three actions which should take place at the same time, regularly, vigorously, and quickly. Horses with lame withers or shoulders, cannot lift well the leading fore-foot, and are not sure in the act of reaching. A bad hoof is seen in the incomplete act of stepping and treading. The tread of a horse with the staggers, is insecure and heavy. Avoid horses that strike the fore-feet with their hind-feet; those that throw their fore-feet outward too much; those with a too fleshy hock; and those that interfere or kick. Aside from all that has been said above, it is of the utmost importance that the buyer should always bear in mind for what purpose he wants to buy a horse.

For a fuller and better understanding of all the faults and diseases of horses, see Plate No. II, "The Sick Horse." Stiff horses are improved by exercise, prior to the sale; lame horses are exhibited on soft ground. Lazy animals, or stupid and inattentive ones, are kept attentive and active by the sound of the whip. Common, or even cayenne pepper, is introduced into the passage, to make the horse carry his tail high, and improve the position of the croup. The latter trick may be discovered if the horse passes dung frequently during the examination. Grey hairs over the eyes of old horses, light spots, and even the feet, are dyed, which trick can only be found out after the horse sheds its coat. To guard against all the tricks of the trade requires a knowledge of the outward appearance of the horse, as well as its anatomy and physiology, to which may be added pathology; and no connoisseur or veterinarian should be without these qualifications.

HORSEMAN'S POINTS.

[*Explanations of Plate I.*]

A A, Fore-hand.	20, Elbow.
a, Head.	21, Knee.
b b b, Neck.	22, Cannon-bones.
c c, Shoulder.	23, Fetlocks.
d, Breast.	24, Large pasterns.
e, Arm.	25, Small pasterns.
f, Fore-legs.	26, Hoof.
1, Muzzle.	27, Heels.
2, Nose.	28, Crown of the hoof.
3, Wings of the nose.	B B, Middle-hand.
4, Face.	A, Back.
5, Forehead.	B, Loin.
6, Jaw.	C C, Barrel (the ribs).
7, Fore-top.	D, Flank.
8, Chin.	E, Girth.
9, Curb of the chin.	C C, Back-hand.
10, Outer corner of the eye.	29, Hip.
11, Inner " " " "	30, Croup or rump.
12, Nape.	31, Dock.
13-13, Crest.	32, Quarter.
14, Mane, or mane hair.	33, Stifle.
15, Withers.	34, Thigh.
16, Throat.	35, Hamstring.
17, Windpipe or trapple.	36, Hocks.
18, Point of the shoulder.	37, Point of the hock.
19, Fore-arm.	



MODEL HORSE.

THE OLD SICK HORSE.

[Explanations of Plate II.]

Fig. 1.

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| No. 1, Sickly discharge from the nostrils. | Symptoms of
glanders. | |
| " 2, Ulceration of the membrane, lining the whole cavity of the nose. | | |
| " 3, Swelling of the glands. | | |
| " 4, Discharge of matter from the eye. Symptom of moon-blindness, glanders, and catarrhal pains. | | |
| " 5, Caries of the lower-jaw. Causes, maltreatment; oftener, fistulas of the teeth. | | |
| " 6, Fistula of the parotid duct. | | |
| " 7, Scars from an old fontanel, indicating former or still-existing brain diseases. | | |
| " 8, Hurts and scars, at the forehead and over the eyes (<i>orbicularis</i>), frequently indications of <i>rabies</i> , <i>running over</i> , and <i>blindness</i> . | | |
| " 9, Warts on the ears; horses suffering from these, resist frequently the bridling. | | |
| " 10, Inflamed parotid gland, with inflammation of the throat. | | |
| " 11, Fistula of the parotid gland, frequently the consequence of unnecessary operations. | | |
| " 12, Swelling, by pressure of the bridle. | | |
| " 13, Poll-evil. | | |
| " 14, Inflamed jugular vein, comes frequently from bleeding. | | |
| " 15, Scars, from repeated bleeding, are frequently found on horses, who had the <i>rabies</i> and other diseases. | | |
| " 16, Scab of the mane. | | |
| " 17, <i>a</i> , Swelling of the lymphatic vessels; <i>b</i> , ulcerated lymphatic | | gland, with cutaneous worms. |

Symptoms of farcy, or of deep-seated suppuration, or of acute inflammation of the same parts, merely.

No. 18, Fungus tumor, produced by pressure of the collar.

" 19, Fistula of the withers.

" 20, Tumor of the elbow.

" 21, Induration of the knee.

" 22, Clap of the back sinews.

" 23, Mallenders.

" 24, Splent.

" 25, Ringbone.

" 26, A tread upon the coronet.

" 27, Quittor.

" 28, Sand-crack.

" 29, Contracted or ring foot of a foundered horse.

" 30, Wind-galls.

" 31, Grogginess.

" 32, Saddle-gall.

" 33, Broken ribs.

" 34, Hernia.

" 35, Ventral hernia.

" 36, Swelling from the girth.

" 37, Rat-tail.

" 38, Fistula of the tail.

" 39, Protrusion of the rectum.

" 40, Capped hock.

" 41, Spavin.

" 42, Curb.

" 43, Swelled sinews.

" 44, Thick-leg.

" 45, Grease, or Scratches.

" 46, Cow-crack. Toe-crack.

" 47, Quarter-crack.

A A, Scars from old fontanels, indicating former or still-existing diseases.

Fig. 2, Shows the membrane, lining the cavity of the nose with small ulcerations, caused by glanders.

Fig. 1



Fig. 2



OLD SICK HORSE



THE AGE OF THE HORSE,

DETERMINED BY THE APPEARANCE OF THE TEETH.

[*Explanations of Plate III.*]

The safest way of determining the age of a horse is by the appearance of the teeth, which undergo certain changes in the course of years. Pessina, a German veterinary surgeon of renown, who made this a special study, came to the classification given below. Although generally accepted, even here exceptions will occur, as for instance: a noble horse might be taken for younger than he is, because the stronger structure of all the bones makes the teeth also stronger than those of a horse of an inferior breed, of the same age. Frequently, three years old colts are brought to market with the nippers broken out, and sold for four years old.

The classification of Pessina is as follows: At birth, the teeth have not appeared; eight to fourteen days thereafter, the first middle nippers of the set of milk-teeth are cut (Fig. 1); four to six weeks afterwards, the pair next to them (Fig. 2); and finally, after six or eight months, the last (Fig. 3).

All these milk-teeth have a well-defined body, neck, and slender fang, and on their front surfaces grooves or furrows, which disappear from the middle nippers at the end of one year; from the next pair in two years; and from the incisive teeth (cutters) in three years.

At the age of two years and a half, the nippers become loose and fall out; in their places appear two permanent teeth, with deep, black cavities, and full, sharp edges (Fig. 4); after one year, the next pair (Fig. 5); and after an-

other year, the corner teeth (Fig. 6); so that the horse has his permanent set of teeth when about five years old.

As the horse becomes older, his teeth are worn away, by use, about one-twelfth of an inch every year; so, that the black cavities of the nippers disappear in the sixth year (Fig. 7); those of the next pair (middle teeth), in the seventh year (Fig. 8); and those of the corner teeth, in the eighth year (Fig. 9). In the ninth year, each of the two upper corner teeth has a little sharp protrusion at the extreme inner corners, the cavities have completely disappeared (Fig. 10), and are only indicated by brownish spots, the oval form becomes broader, and changes, from the twelfth to the sixteenth year, more and more into a triangular form, and the teeth lose, finally, with the twentieth year, all regularity. There is nothing remaining in the teeth that can, afterwards, clearly show the age of the horse, or justify the most experienced examiner in giving a positive opinion.

The tushes or canine teeth, conical in shape, with a sharp point, and curved, are cut between the third and fourth year; their points become more and more rounded, until the ninth year, and after that, more and more dull in the course of years, and lose, finally, all regular shape. Mares have, frequently, no tushes, or only very faintly indicated.



THE FOOT.

[*Explanations of Plate IV.*]

Fig. 1, Represents a regularly-built hoof, front and side view.

“ 2, A hoof in which the sole protrudes, called *hoof-bound*.

“ 3, A *flat hoof*, the sole is on a level with the wall of the hoof.

“ 4, Section of the foot :

1, Coronet-bone.

2, Coffin-bone.

3, Navicular-bone.

a, the wall ; *b*, the sole ; *c*, the cleft of the frog ; *d d*, the frog ; *ee*, the fatty frog, or elastic cushion ; *f*, the sensitive sole ; *g*, the sensitive frog ; *h h h*, tendons of the muscles, which bend the foot ; *i*, part of the pastern bone ; *k k*, tendons of the muscles, which extend the foot ; *l*, the coffin-joint ; *m*, the navicular-joint ; *n*, the coronary substance ; *o*, the sensible laminae, or covering of the coffin-bone.

“ 5, The horny part of the foot :
a, the frog-stay ; *b b*, the two

horny projections, rising into the cavity of the hoof, formed by the commissures ; *cc*, portions of the same projections.

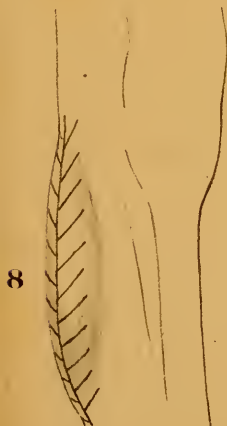
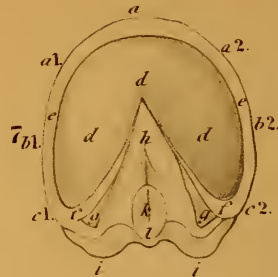
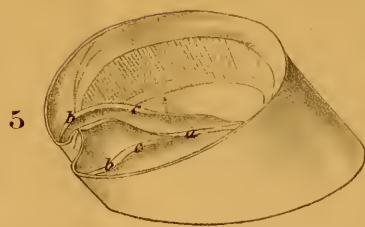
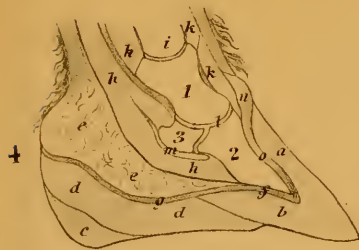
Fig. 6, A contracted hoof.

“ 7, A regular, sound hoof, seen from the sole ; *a*, the toe ; *a 1*, the inner-toe ; *a 2*, the outer-toe ; *b 1*, the inner-quarter ; *b 2*, the outer-quarter ; *c 1*, the inner-heel ; *c 2*, the outer-heel ; *d d d*, the sole ; *ee*, the crust, or wall of the hoof ; *ff*, the bars ; *gg*, the commissures ; *h k l*, the frog ; *i i*, the bulbs of the heels.

“ 8, Clap of the back sinews, treated by firing applied in longitudinal lines, about half an inch from each other, and also as shown by Fig. 8 and 9.

“ 9, *Curb* and *sparin*, similarly treated as above.

“ 10, *Sparin*, treated by firing, not in lines, but dotting over the sick spot.



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